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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,660

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P18400

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07/23/2007

EXAMINER

FOUD, HICHAM B

ART UNIT

PAPER NUMBER

2616

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/812,660

Applicant(s)

STEPHENS, ADRIAN P.

Examiner

Hicham B. Foud

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/11/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 9-17 and 22-34 are objected to because of the following informalities:

Claim 9 is objected because of the need of comma (,) before the term "the request".

Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 11 depends on claim 9, which claims that the request includes a multicast address. However, the dependant claim 11 recites the same thing. Thus, claim 11 does not further limit the claim 9 because it is claiming the same thing twice.

In claim 17, note that claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure, such as by using the term "adapted to" and/or "able to". Therefore, claim language following this phrase will not be considered. Similar problem occurs in claims 24, 28, 29, 31 and 32. It is suggested that Applicant remove this term (s).

Claims 22-34 are misnumbered because claim 22 is followed by claim 22 instead of claim 23.

Claims 12-16 are objected because of their dependency on the objected claim.

Appropriate correction is required.

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### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 7-10 and 15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,2, 4, 7-9, 14 and 15 of copending Application No. 11/441661. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

For claim 1, claim 1 of copending Application No. 11/441661 discloses a multicast method for a wireless network comprising: notifying an access point of a multicast request; scheduling a downlink time for the transmission of multicast data; and multicasting the data from the access point during the downlink time to multicast addressees.

The claim 1 of the instant application merely changes the scope of claim 1 of copending Application No. 11/441661 by not separating between the scheduling of the multicast data and the multicasting of the same data. Also, an official notice is taken in that sending information from an access point (AP) to clients (wireless devices) is done in the downlink. Thus, it would have been obvious to the one skill in the art at the time of the invention to specify the transmission of the multicast schedule in the downlink for the purpose of differentiating the transmission from the uplink. Therefore, the claim 1 of the instant application is not distinct from the claim 1 of copending Application No. 11/441661.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4, 9, 11 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 4 depends on claim 1 which requires that the request is sent from the client (STA) to the access point (AP). However, claim 4 states that the request includes

a multicast address. It is not explained in the specification of how the request from the STA can include or create a multicast address because the AP who has the ability to determine the multicast address and not the STA.

Claims 9, 11 and 33 are rejected for the same reasons as claim 4.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Pecen et al (US 2005/0083961) hereinafter is referred to as Pecen.

For claim 1, Pecen discloses a method for delivering information in a wireless network, the method comprising: receiving from a client, a request for delivery of the information (see Figure 2 box 204; wherein the user sends a request); and sending the information to the client according to a multicast schedule (see Figure 2 box 212; wherein the base station of Figure 1 element 112 sends the multicast data).

For claim 2, Pecen discloses a method further comprising: sending a response to the client confirming scheduling of the request (see Figure 2 box 208 and paragraph 0024; wherein a signaling message is sent to clients to confirm the scheduling which includes TMGI).

For claim 3, Pecen discloses a method further comprising: determining whether the multicast schedule exists for the request (see Figure 2 box 206; wherein storing record of mobile device requesting multicast; inherently, there is no multicast schedule exists for the request); and if not, creating the multicast schedule (see Figure 2 box 204)

For claim 5, Pecen discloses a method further comprising: deleting the multicast schedule after all clients associated with the multicast schedule have been sent the information (see Figure 2 box "stop" the end of the cycle; inherently, the multicast schedule was deleted after sending the multicast media ).

For claim 8, Pecen discloses a method wherein the response comprises a TSPEC response (see Figure 2 box 10 and paragraph 0026; wherein the clients that requested the multicast configures itself to receive the multicast data in response to signaling message; inherently the signaling message comprises of traffic specification (TSPEC)).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Pung et al (US 2002/0150099) hereinafter referred to as Pung.

For claim 4, Pecen discloses all the subject matter with the exception of wherein the request includes a multicast address and a quality of service (QoS) identifier

However, Pung discloses a method in communication networks wherein the request includes a multicast address and a quality of service (QoS) identifier (see the fields of the request in Figure 4A; the multicast ID (MT-ID) and the QOS). Thus, it would have been obvious to the one skill in the art at time of the invention to use the request as taught by the invention of Pung into the invention of Pecen for the purpose of identification and satisfaction of quality of service constraints.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Chuah et al (US 7,096,039) hereinafter referred to as Chuah.

For claim 6, Pecen discloses all the subject matter with the exception of wherein deleting the multicast schedule comprises receiving a deletion request from each client associated with the multicast schedule to delete the multicast schedule. However, Chuah discloses a method wherein each client needs to send a deletion message or a membership addition message to update the routing table and to know how many packets to be duplicated. Thus, it would have been obvious to the one skill in the art at the time of the invention to use the method of updating the routing table by sending deletion messages as taught by the invention of Chuah into the invention of Pecen for the purpose of updating the routing table and thus increasing the efficiency of the system.

7. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Benveniste (US 2005/0152324).

For claim 7, Pecen discloses all the subject matter with the exception of wherein the wireless network comprises a wireless local area network (WLAN) and wherein the



request comprises a transmission specification (TSPEC) request. However, Benveniste discloses a method in wlan (see Figure 1 and paragraph 0028) and wherein a request comprises a transmission specification (TSPEC) request (see paragraph 0032; station submits a TSPEC request). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the request as taught by the invention of Benveniste into the invention of Pecen for the purpose of the AP (access point) to know in advance the estimate of the data traffic and associated requirement and therefore increase the accuracy and the efficiency of the system. .

8. Claims 9, 10, 13, 14, 17-20, 22-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Vook et al (US 5,636,220) hereinafter is referred to as Vook.

For claims 9, 17 and 24, Pecen discloses a method of receiving information in a wireless network, the method comprising: sending a request for delivery of the information the request including a multicast designation address (See Figure 2 box 204;request for multicast). Pecen discloses all the subject matter with the exception of configuring a power saving protocol to accommodate a scheduled delivery of the information. However, Vook discloses a method that schedules the delivery of the packets according to the power saving mode (see column 2 lines 8-17). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the method of delivering packets as taught by the invention of Vook into the invention of Pecen to increase battery life of the wireless devices.

For claims 10 and 20, Pecen discloses a method further comprising receiving a response confirming the request (see Figure 2 box 208 and paragraph 0024; wherein a signaling message is sent to clients to confirm the scheduling which includes TMGI).

For claims 13, 26 and 34, Vook discloses a method wherein the wireless network comprises a wireless local area network (WLAN)(see Figure 1 which uses WLAN).

For claim 14, both pecen and Vook do not explicitly mention the use of OFDM. However, an official notice is taken in that OFDM can be used since OFDM is a digital multi-carrier modulation scheme. Thus, it would have been obvious to the one skill in the art at the time of the invention to use OFDM as a modulation scheme for the purpose of increasing the adaptation to severe channel conditions without complex equalization.

For claims 18 and 25, Vook discloses an apparatus further comprising: a radio frequency (RF) interface (See Figure 2 element 200) coupled to the processing circuit (See figure 2 element 220).

For claims 19, 27 and 32, pecen discloses an apparatus wherein the processing portion includes a medium access controller (MAC) configured to request delivery of information from the network device (see Figure 2 box 204).

For claim 22, pecen discloses an apparatus wherein the apparatus comprises a wireless user station (STA)(see Figure 1 elements 114).

For claim 22 (the following), Vook discloses an apparatus comprises a network adaptor (See Figure 2 element 210).

For claim 23, Vook discloses an apparatus further comprising at least two antennas coupled to the RF interface (See Figure 2 elements 212).

For claim 28, Pecen discloses an apparatus wherein the processing circuit is adapted to be able to send the schedule to one or more requesting network devices as a transmission specification (TSPEC) response (see Figure 2 box 10 and paragraph 0026; wherein the clients that requested the multicast configures itself to receive the multicast data in response to signaling message; inherently the signaling message comprises of traffic specification (TSPEC)).

For claim 29, Pecen discloses an apparatus wherein the processing circuit is further adapted to be able to buffer application data packets for the wireless multicast until a time indicated on the schedule (see Figure 2 Block 212 ending the multicast media and the last block "stop"; inherently, at the end of the schedule of delivering the multicast which can be based on time of the schedule).

For claim 30, Vook discloses an apparatus further comprising at least two antennas coupled to the RF interfaces for enabling multiple input multiple output (MIMO) communications (see Figure 2 elements 212; inherently; the use of multiple RF signals in the transceiver is for MIMO communications).

Claim 31 is rejected for same reasons as claims 24, 25 and 30.

9. Claims 11, 12 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view Vook of as applied to claims 9, 31 and 32 above, and further in view of Pung.

For claims 11 and 12, Pecen and Vook disclose all the subject matter with the exception of wherein the request includes a multicast address and a quality of service (QoS) attribute. However, Pung discloses a method in communication networks wherein the request includes a multicast address and a quality of service (QoS) identifier (see the fields of the request in Figure 4A; the multicast ID (MT-ID) and the QoS). Thus, it would have been obvious to the one skill in the art at time of the invention to use the request as taught by the invention of Pung into the invention of Pecen and Vook for the purpose of identification and satisfaction of quality of service constraints.

For claim 33, Pecen and Vook disclose all the subject matter with the exception of wherein the requests comprise a transmission specification (TSPEC) including a multicast address and a quality of service (QoS) indicator. However, Pung discloses a method in communication networks wherein the request includes a multicast address and a quality of service (QoS) identifier (see the fields of the request in Figure 4A; the multicast ID (MT-ID) and the QoS). Thus, it would have been obvious to the one skill in the art at time of the invention to use the request as taught by the invention of Pung into the invention of Pecen and Vook for the purpose of identification and satisfaction of quality of service constraints.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Vook as applied to claim 9 above, and further in view of Benveniste.

For claim 15 Pecen and Vook disclose all the subject matter with the exception of wherein the request comprises a transmission specification (TSPEC). However,

Benveniste discloses a method wherein a request comprises a transmission specification (TSPEC) request (see paragraph 0032; station submits a TSPEC request). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the request as taught by the invention of Benveniste into the invention of Pecen and Vook for the purpose of the AP (access point) to know in advance the estimate of the data traffic and associated requirement and therefore increase the accuracy and the efficiency of the system.

11. Claims 16, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view Vook of as applied to claim 9 above, and further in view of Chuah.

For claims 16 and 21, Pecen and Vook disclose all the subject matter with the exception of further comprising sending a schedule deletion request to delete a multicast schedule. However, Chuah discloses a method wherein each client needs to send a deletion message or a membership addition message to update the routing table and to know how many packets to be duplicated. Thus, it would have been obvious to the one skill in the art at the time of the invention to use the method of updating the routing table by sending deletion messages as taught by the invention of Chuah into the invention of Pecen and Vook for the purpose of updating the routing table and thus increasing the efficiency of the system.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

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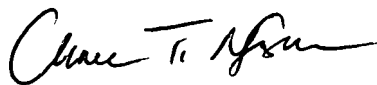
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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